

RECEIVED  
CENTRAL FAX CENTER

Attorney Docket 5577-220 (IBM018PA)  
Serial No. 09/764,252

AUG 15 2006

Official Amendment

**Listing of Claims:**

1. (Currently Amended) A method for providing secure communications over a network in a distributed workload environment having target hosts which are accessed through a distribution processor by a common network address, the method comprising the steps of:

routing both inbound and outbound communications with target hosts which are associated with ~~a secure network communication~~ an end-to-end secure network communication through the distribution processor;

processing both inbound and outbound end-to-end secure network communications at the distribution processor so as to provide endpoint network security processing of communications from the target host and endpoint network security processing of communications to the target host;

receiving at the distribution processor, network communications directed to the common ~~network address; and address;~~

encapsulating communications between the distribution processor and selected ones of the plurality of target hosts which are associated with end-to-end secure network communications; and

distributing the received network communications that are directed to the common network address among selected ones of the target hosts, wherein the selection among the target hosts is carried out so as to distribute workload associated with the network communications among the target hosts.

2. (Canceled).

3. (Currently Amended) A method according to ~~Claim 2~~ Claim 1, further comprising the steps of:

determining if the received network communications are end-to-end secure network communications which are to be distributed to ones of the target hosts;

Attorney Docket 5577-220 (IBM018PA)  
Serial No. 09/764,252

Official Amendment

wherein ~~the step of processing both inbound and outbound secure network communications at the distribution processor comprises the step of encapsulating~~ communications between the distribution processor and selected ones of the plurality of target hosts which are associated with end-to-end secure network communications comprises processing the received network communications so as to provide encapsulated generic communications to the ones of the plurality of target hosts if the received network communications are end-to-end secure network communications which are distributed to ones of the target hosts and to not provide encapsulated generic communications to the ones of the plurality of target hosts if the received network communications are not end-to-end secure network communications.

4. (Currently Amended) A method according to Claim 3, wherein ~~the step of processing both inbound and outbound~~ end-to-end secure network communications further comprises the steps of:

receiving at the distribution processor communications from the ones of the target hosts which are associated with end-to-end secure network communications; and

processing the received communications from the ones of the target hosts so as to provide endpoint network security for the communications from the ones of the target hosts.

5. (Currently Amended) A method according to ~~Claim 4~~ Claim 1, wherein encapsulating communications between the distribution processor and selected ones of the plurality of target hosts which are associated with end-to-end secure network communications comprises encapsulating the communications ~~the communications received from the target hosts and the generic communications to ones of the plurality of target hosts are encapsulated in a generic routing format.~~

6. (Currently Amended) A method according to ~~Claim 4~~ Claim 5, wherein the generic communications are encapsulated in a generic routing format having sufficient information in a

Attorney Docket 5577-220 (IBM018PA)  
Serial No. 09/764,252

Official Amendment

header of the generic routing format so as to authenticate the source of the communication between the distribution processor and ones of the plurality of target hosts.

7. (Currently Amended) A method according to ~~Claim 4~~ Claim 1, wherein the communications received from the target hosts at the distribution processor and the ~~generic encapsulated~~ communications to ones of the plurality of target hosts from the distribution processor are communicated over trusted communication links.

8. (Currently amended) A method according to ~~Claim 4~~ Claim 5, further comprising the step of establishing common IP filters for communications ~~encapsulated in a generic routing format~~ at the distribution processor and the plurality of target hosts.

9. (Original) A method according to Claim 8, wherein the common IP filters bypass IP filtering for inbound communications encapsulated in the generic routing format.

10-19. (Canceled).

20. (Currently Amended) A system for providing secure communications over a network in a distributed workload environment having target hosts associated with a common IP address and which are accessed through a distribution processor by a common network address, comprising:

means for routing both inbound and outbound communications with target hosts which are associated with ~~a secure network communication~~ an end-to-end secure network communication through the distribution processor;

means for processing both inbound and outbound end-to-end secure network communications at the distribution processor so as to provide endpoint network security processing of communications from the target host and endpoint network security processing of communications to the target host;

means for receiving at the distribution processor, network communications directed to the common network ~~address~~; and address;

Attorney Docket 5577-220 (IBM018PA)  
Serial No. 09/764.252

Official Amendment

means for encapsulating communications between the distribution processor and selected ones of the plurality of target hosts which are associated with end-to-end secure network communications; and

means for distributing the received network communications that are directed common network address among selected ones of the target hosts, wherein the selection among the target hosts is carried out so as to distribute workload associated with the network communications among the target hosts.

21. (Canceled).

22. (Currently Amended) A system according to ~~Claim 21~~ Claim 20, further comprising:

means for determining if the received network communications are end-to-end secure network communications which are to be distributed to ones of the target hosts;

wherein the ~~means for processing both inbound and outbound secure network communications at the distribution processor~~ means for encapsulating communications between the distribution processor and selected ones of the plurality of target hosts which are associated with end-to-end secure network communications comprise means for processing the received network communications so as to provide encapsulated generic communications to the ones of the plurality of target hosts if the received network communications are secure network communications which are distributed to ones of the target hosts and means to not provide encapsulated generic communications to the ones of the plurality of target hosts if the received network communications are not end-to-end secure network communications.

23. (Currently Amended) A system according to Claim 22, wherein the ~~step of processing~~ means for processing both inbound and outbound end-to-end secure network communications further comprises:

means for receiving at the distribution processor communications from the ones of the target hosts which are associated with end-to-end secure network communications; and

Attorney Docket 5577-220 (IBM018PA)  
Serial No. 09/764,252

Official Amendment

means for processing the received communications from the ones of the target hosts so as to provide endpoint network security for the communications from the ones of the target hosts.

24. (Currently Amended) A system according to ~~Claim 23~~ Claim 20, wherein the ~~communications received from the target hosts and the generic communications to ones of the plurality of target hosts are encapsulated~~ means for encapsulating communications between the distribution processor and selected ones of the plurality of target hosts which are associated with end-to-end secure network communications comprises means to encapsulate the communications in a generic routing format.

25. (Currently Amended) A system according to ~~Claim 23~~ Claim 24, wherein generic communications are encapsulated in a generic routing format having sufficient information in a header of the generic routing format so as to authenticate the source of the communication between the distributing processor and ones of the plurality of target hosts.

26. (Currently Amended) A system according to ~~Claim 23~~ Claim 20, wherein the communications received from the target hosts and the ~~generic encapsulated~~ communications to ones of the plurality of target hosts are communicated over trusted communication links.

27. (Currently Amended) A system according to ~~Claim 23~~ Claim 24, further comprising means for establishing common IP filters for communications ~~encapsulated in the generic routing format~~ at the distributing processor and the plurality of target hosts.

28. (Original) A system according to Claim 27, wherein the common IP filters bypass IP filtering for inbound communications encapsulated in the generic routing format.

29.-38. (Canceled).

Attorney Docket 5577-220 (IBM018PA)  
Serial No. 09/764,252

Official Amendment

39. (Currently Amended) A computer program product for providing secure communications over a network in a distributed workload environment having target hosts associated with a common IP address and which are accessed through a distribution processor by a common network address, comprising:

a computer readable medium having computer readable program code embodied therein, the computer readable program code comprising:

computer readable program code which routes both inbound and outbound communications with target hosts which are associated with ~~a secure network communication~~ an end-to-end secure network communication through the distribution processor;

computer readable program code which processes both inbound and outbound end-to-end secure network communications at the distribution processor so as to provide endpoint network security processing of communications from the target host and network security processing of communications to the target host;

computer readable program code which receives at the distribution processor, network communications directed to the common network ~~address; and~~ address;

computer readable program code which encapsulates communications between the distribution processor and selected ones of the plurality of target hosts which are associated with end-to-end secure network communications; and

computer readable program code which distributes the received network communications that are directed to the common network address among to selected ones of the target hosts, wherein the selection among the target hosts is carried out so as to distribute workload associated with the network communications among the target hosts.

40. (Canceled).

41. (Currently Amended) A computer program product according to ~~Claim 40~~ Claim 39, further comprising:

Attorney Docket 5577-220 (IBM018PA)  
Serial No. 09/764,252

Official Amendment

computer readable program code which determines if the received network communications are end-to-end secure network communications which are to be distributed to ones of the target hosts;

wherein the computer readable program code which ~~processes both inbound and outbound secure network communications at the distribution processor~~ comprise encapsulates communications between the distribution processor and selected ones of the plurality of target hosts which are associated with end-to-end secure network communications comprises computer readable program code which processes the received network communications so as to provide encapsulated generic communications to the ones of the plurality of target hosts if the received network communications are end-to-end secure network communications which are distributed to ones of the target hosts and to not provide encapsulated generic communications to the ones of the plurality of target hosts if the received network communications are not end-to-end secure network communications.

42. (Currently Amended) A computer program product according to Claim 41, wherein the computer readable program code which processes both inbound and outbound end-to-end secure network communications further comprises:

computer readable program code which receives at the distribution processor communications from the ones of the target hosts which are associated with end-to-end secure network communications; and

computer readable program code which processes the received communications from the ones of the target hosts so as to provide endpoint network security for the communications from the ones of the target hosts.

43. (Currently Amended) A computer program product according to ~~Claim 42~~ Claim 39, wherein ~~the communications received from the target hosts and the generic communications to ones of the plurality of target hosts are encapsulated~~ computer readable program code which encapsulates communications between the distribution processor and selected ones of the plurality of target hosts which are associated with end-to-end secure network communications

Attorney Docket 5577-220 (IBM018PA)  
Serial No. 09/764,252

Official Amendment

comprises computer readable program code which encapsulates the communications in a generic routing format.

44. (Currently Amended) A computer program product according to ~~Claim 42~~ Claim 43, wherein generic communications are encapsulated in a generic routing format having sufficient information in a header of the generic routing format so as to authenticate the source of the communication between the distributing processor and ones of the plurality of target hosts.

45. (Currently Amended) A computer program product according to ~~Claim 42~~ Claim 39, wherein the communications received from the target hosts at the distribution processor and the ~~encapsulated-generic~~ communications to ones of the plurality of target hosts from the distribution processor are communicated over trusted communication links.

46. (Currently Amended) A computer program product according to ~~Claim 42~~ Claim 43, further comprising ~~the step of establishing~~ computer readable program code which provides common IP filters for communications encapsulated in the generic routing format at the distributing processor and the plurality of target hosts.

47. (Original) A computer program product according to Claim 46, wherein the common IP filters bypass IP filtering for inbound communications encapsulated in the generic routing format.

48.-57. (Canceled).

58. (Previously Presented) The method according to Claim 1, wherein distributing the received network communications that are directed to the common IP address among selected ones of the target hosts comprises:



Attorney Docket 5577-220 (IBM018PA)  
Serial No. 09/764,252

Official Amendment

selecting among the target hosts for distribution of the network communications in response to a predefined selection pattern to distribute workload associated with the network communications among the target hosts.

59. (Previously Presented) The method according to Claim 58, wherein selecting among the target hosts for distribution of the network communications in response to a predefined selection pattern to distribute workload associated with the network communications among the target hosts comprises:

selecting among the target hosts associated with the common network address based on a round-robin pattern.

60. (Previously Presented) The method according to Claim 1, wherein distributing the received network communications that are directed to the common network address among selected ones of the target hosts comprises:

selecting among the target hosts for distribution of the network communications in response to a dynamic criteria that changes over time to distribute workload associated with the network communications among the target hosts.

61. (Previously Presented) The method according to Claim 39, wherein the computer readable program code which distributes the received network communications that are directed to the common network address among selected ones of the target hosts comprises:

computer readable program code that selects among the target hosts for distribution of the network communications in response to a predefined selection pattern to distribute workload associated with the network communications among the target hosts.

62. (Previously Presented) The method according to Claim 61, wherein the computer readable program code that selects among the target hosts for distribution of the network communications in response to a predefined selection pattern to distribute workload associated with the network communications among the target hosts comprises:

Attorney Docket 5577-220 (IBM018PA)  
Serial No. 09/764,252

Official Amendment

computer readable program code that selects among the target hosts associated with the common network address based on a round-robin pattern.

63. (Previously Presented) The method according to Claim 39, wherein the computer readable program code which distributes the received network communications that are directed to the common network address among selected ones of the target hosts comprises:

computer readable program code that selects among the target hosts for distribution of the network communications in response to a dynamic criteria that changes over time to distribute workload associated with the network communications among the target hosts.

64. (New) The method according to claim 1, further comprising:

receiving at a target host, an encapsulated communication;

comparing a physical link corresponding to said distributor to a source of encapsulation;

and

ignoring the encapsulated communication if said physical link does not match to said source of encapsulation.

65. (New) The method according to claim 1, wherein distributing the received network communications that are directed to the common network address among selected ones of the target hosts distribution processor comprises distributing the received network communications using a sysplex distributor.

66. (New) The method according to claim 1, wherein the end-to-end secure network communication comprises a communication using the IPSEC communication protocol.

67. (New) The system according to claim 20, further comprising:

means for receiving at a target host, an encapsulated communication;

means for comparing a physical link corresponding to said distributor to a source of encapsulation; and

Attorney Docket 5577-220 (IBM018PA)  
Serial No. 09/764,252

Official Amendment

means for ignoring the encapsulated communication if said physical link does not match to said source of encapsulation.

68. (New) The system according to claim 20, wherein the means for distributing the received network communications comprises a sysplex distributor.

69. (New) The system according to claim 20, wherein the end-to-end secure network communication comprises a communication using the IPSEC communication protocol.

70. (New) The computer program product according to claim 39, further comprising:  
computer readable program code which receives at a target host, an encapsulated communication;  
computer readable program code which compares a physical link corresponding to said distributor to a source of encapsulation; and  
computer readable program code which ignores the encapsulated communication if said physical link does not match to said source of encapsulation.

71. (New) The computer program product according to claim 39, wherein the computer readable program code which distributes the received network communications comprises a sysplex distributor.

72. (New) The computer program product according to claim 39, wherein the end-to-end secure network communication comprises a communication using the IPSEC communication protocol.